

OC539F20 CAMERA SENSORS • CAMERA SENSORS

Camera sensors are used to simultaneously check various properties of objects (e.g., completeness, dimensional accuracy, position, damages, labeling). This takes place independent of the component position virtually in real time. Camera sensors are image processing systems that combine image sensor and image processing computer with image processing software in a metal housing. Depending on the version, lens and illumination unit are also integrated in the housing or must be additionally mounted. The camera sensors are set using an intuitive software program. On the device, object-specific check programs can be stored that contain the respective feature checks. These programs can be activated depending on the object that is to be inspected. The rugged housing design makes possible use under harsh environmental conditions.



MECHANICAL FEATURES

Housing coatingWith powder coatingHousing materialAluminumMaterial of optical surfacePMMASensor height113 mmSensor length50 mmSensor width53 mmELECTRICAL FEATURESEError image memory32Feature comparison, color arrangement-Feature comparison, color determination-For interchangeable lens (C-mount)+Input voltage at DC8 V 30 VIntegrated flash controller for external illumination+Max. output current100 mAMeasuring time for high speed144 fpsNumber of digital inputs5Number of digital inputs5Number of pins12Number of pins5Operating voltage184 V 30 VPower consumption5Operating voltage5Operating voltage5Property picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection4Ype of communication interfaceApplication softwareStort-circuit protection+Type of communication interfaceApplication software	MECHANICAL FEATURES	
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Housing materialAluminumMaterial of optical surfacePMMASensor height113 mmSensor height50 mmSensor length50 mmSensor width53 mmELETCRICAL FEATURESEtror image memory32Feature comparison, color arrangement-Feature comparison, color determination-For interchangeable lens (C-mount)+Input voltage at DC8 V 30 VIntegrated flash controller for external illumination+Max. output current100 mAMeasuring time for high speed144 fpsNo-load current28 mANumber of digital inputs5Number of digital outputs5Number of switching outputs5Operating voltage18 V 30 VProver consumption5Querating voltage5Querating voltage5Querating voltage5Property picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Ype of communication interfaceApplication software	Degree of protection (IP)	IP67
Material of optical surfacePMMASensor height113 mmSensor length50 mmSensor width53 mmELECTRICAL FEATURESError image memory32Feature comparison, color arrangement-Feature comparison, color determination-For interchangeable lens (C-mount)+Integrated flash controller for external illumination+Max. output current100 mAMeasuring time for high speed144 fpsNo-load current208 mANumber of digital inputs5Number of pins of the communication interface4Number of pins of the communication interface4Number of spins of the communication5Operating voltage18 V 30 VPower consumption-Reverse polarity protection-Reverse polarity protection+Type of communication interface4Application software-Stort-circuit protection+Type of communication interface-Reverse polarity protection+Stort-circuit protection+	Housing coating	With powder coating
Sensor height113 mmSensor length50 mmSensor width53 mmELECTRICAL FEATURESError image memory32Feature comparison, color arrangement-Feature comparison, color determination-For interchangeable lens (C-mount)+Integrated flash controller for external illumination+Max. output current100 mAMas. output current100 mANumber of digital inputs5Number of digital inputs5Number of pins of the communication interface4Number of pins of the communication interface4Number of pins of the communication5Querating voltage5Querating voltage5Prover consumption5Prover politier systemBlack and whiteQR code and barcode identification-Reverse polarity protection4Stort-circuit protection+Type of communication interfaceApplication software	Housing material	Aluminum
Sensor length50 mmSensor width53 mmELECTRICAL FEATURESError image memory32Feature comparison, color arrangement-Feature comparison, color determination-For interchangeable lens (C-mount)+Input voltage at DC8 V 30 VIntegrated flash controller for external illumination+Max. output current100 mAMeasuring time for high speed144 fpsNo-load current5Number of digital inputs5Number of digital outputs5Number of digital outputs5Operating voltage18 V 30 VPower consumption5Querating voltage5Querating voltage5Querating voltage18 V 30 VPower consumption5Reserse polarity protection+Setting procedure4An uniter of pins5Property picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Ype of communication interfaceApplication softwareShort-circuit protection+Ype of communication interfaceApplication software	Material of optical surface	PMMA
Sensor width53 mmELECTRICAL FEATURESError image memory32Feature comparison, color arrangement-Feature comparison, color determination-For interchangeable lens (C-mount)+Input voltage at DC8 V 30 VIntegrated flash controller for external illumination+Max. output current100 mAMeasuring time for high speed144 fpsNo-load current208 mANumber of digital inputs5Number of digital inputs5Number of pins12Number of pins12Number of pins of the communication interface4Number of switching outputs5Operating voltage18 V 30 VPower consumption5Reverse polarity protection+Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceApplication software	Sensor height	113 mm
ELECTRICAL FEATURES Error image memory 32 Feature comparison, color arangement - Feature comparison, color determination - For interchangeable lens (C-mount) + Input voltage at DC 8 V 30 V Integrated flash controller for external illumination + Max. output current 100 mA Max.output current 208 mA Number of digital inputs 5 Number of digital outputs 5 Number of pins 12 Number of pins of the communication interface 4 Number of switching outputs 5 Operating voltage 18 V 30 V Property picture system Black and white QR code and barcode identification - Reverse polarity protection + Stittig procedure Application software Short-circuit protection +	Sensor length	50 mm
Error image memory32Feature comparison, color arrangement-Feature comparison, color determination-For interchangeable lens (C-mount)+Input voltage at DC8 V 30 VIntegrated flash controller for external illumination+Max. output current100 mAMeasuring time for high speed144 fpsNumber of digital inputs5Number of digital outputs5Number of gins of the communication interface4Number of soft the communication interface5Operating voltage18 V 30 VProperty picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Sensor width	53 mm
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Max. output current100 mAMeasuring time for high speed144 fpsNo-load current208 mANumber of digital inputs5Number of digital outputs5Number of pins12Number of pins of the communication interface4Number of switching outputs5Operating voltage18 V 30 VPower consumption5 WProperty picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Input voltage at DC	8 V 30 V
Measuring time for high speed144 fpsNo-load current208 mANumber of digital inputs5Number of digital outputs5Number of pins12Number of pins of the communication interface4Number of switching outputs5Operating voltage18 V 30 VPower consumption5 WProperty picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Integrated flash controller for external illumination	+
No-load current208 mANumber of digital inputs5Number of digital outputs5Number of pins12Number of pins of the communication interface4Number of switching outputs5Operating voltage18 V 30 VPower consumption5 WProperty picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Max. output current	100 mA
Number of digital inputs5Number of digital outputs5Number of pins12Number of pins of the communication interface4Number of switching outputs5Operating voltage18 V 30 VPower consumption5 WProperty picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Measuring time for high speed	144 fps
Number of digital outputs5Number of pins12Number of pins of the communication interface4Number of switching outputs5Operating voltage18 V 30 VPower consumption5 WProperty picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	No-load current	208 mA
Number of pins12Number of pins of the communication interface4Number of switching outputs5Operating voltage18 V 30 VPower consumption5 WProperty picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Number of digital inputs	5
Number of pins of the communication interface4Number of switching outputs5Operating voltage18 V 30 VPower consumption5 WProperty picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Number of digital outputs	5
Number of switching outputs5Operating voltage18 V 30 VPower consumption5 WProperty picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Number of pins	12
Operating voltage18 V 30 VPower consumption5 WProperty picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Number of pins of the communication interface	4
Power consumption5 WProperty picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Number of switching outputs	5
Property picture systemBlack and whiteQR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Operating voltage	18 V 30 V
QR code and barcode identification-Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Power consumption	5 W
Reverse polarity protection+Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	Property picture system	Black and white
Setting procedureApplication softwareShort-circuit protection+Type of communication interfaceConnector M12	QR code and barcode identification	-
Short-circuit protection+Type of communication interfaceConnector M12	Reverse polarity protection	+
Type of communication interface Connector M12	Setting procedure	Application software
	Short-circuit protection	+
Type of electrical connection M12-connector	Type of communication interface	Connector M12
	Type of electrical connection	M12-connector

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ELECTRICAL FEATURES

Type of plug-in contact, communication interface	Female (socket)
Type of switching function	Programmable/configurable
Type of switching output	PNP
With communication interface, Ethernet	+
With communication interface, RS-232	-
With communication interface, RS-485	-
With Ethernet/IP	+
With Profinet	+
With RS485	-

OPTICAL FEATURES

Resolution	640x480
Focal distance	Variable
Image recorder	CCD(1/4")
Measuring time for high resolution	116 fps
Testing and sorting	+
Dimensional accuracy	+
Text identification (OCR)	•
Pick and place	+
Object evaluation regardless of position	+
Part location on contours	+
Part location on edges	+
Part location on circle	+
Part location on text line	+
Geometry - distance	+
Geometry - circle	+
Geometry - angle	+
Geometry - count edges	+
Geometry - point position	+
Feature comparison, count contour points	+
Feature comparison, contour comparison	+
Feature comparison, brightness	+
Feature comparison, contrast	+
Feature comparison, area size	+
Feature comparison, count areas	+
Feature comparison, pattern comparison	+
Geometry of edge contour	+

OTHER FEATURES

Air humidity	0 90% noncondensing
Shock resistance in acc. with EN 60068-2-27	+
Vibration resistance in acc. with IEC 60068-2-6 / IEC 60068-2-64	+
Other	

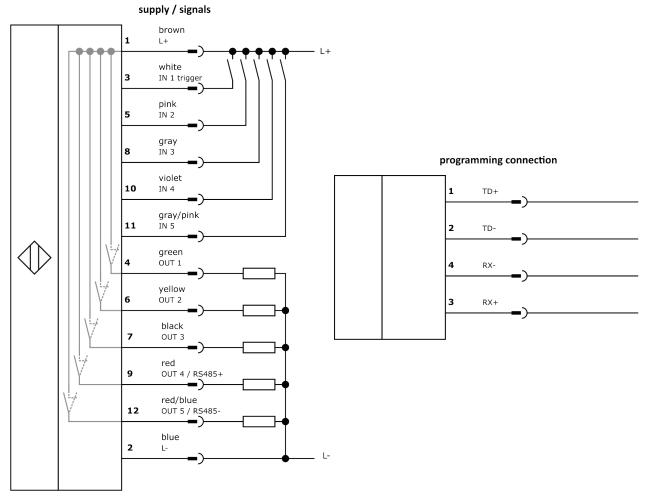
Packaging dimensions	140mm x 150mm x 200mm
Shipping weight	0.55kg
Tariff code	90314990



Classification

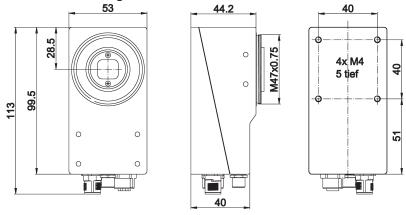
classification	
ipf product group	715
eClass 8.0	27310201
eClass 9.0	27310201
eClass 9.1	27310201
ETIM-5.0	EC001511
ETIM-6.0	EC001511
ETIM-7.0	EC001511

Connection



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Dimensional drawing



Installation



Mounting / installation may only be carried out by a qualified electrician!



Software

Please download the software or driver required for operating your new device on our homepage: www.ipf.de

Safety warnings

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.

Never use these devices in applications where the safety of a person depends on their functionality.

LED lighting systems can generate intensive UV radiation, which can damage your eyes in case of improper use. The manufacturer cannot be held responsible for damages that result from improper use or connection.